

REMARKS

Claims 1, 2, 5-8, and 11-13 are pending in the present application.

Applicants wish to thank Examiner Metzmaier for the helpful and courteous discussion with their undersigned Representative on August 18, 2004. During this discussion, several amendments and arguments were discussed to overcome the rejections over the art of record. The content of this discussion is reflected by the amendments and remarks set forth herein. Reconsideration of the outstanding rejections is requested in view of the amendments and remarks set forth herein.

The rejections of: (a) Claims 1-4 and 8-10 under 35 U.S.C. §102(b) and/or 35 U.S.C. §103(a) over Smith (US 3,962,500), and (b) Claim 2 under 35 U.S.C. §103(a) over Smith (US 3,962,500), are respectfully traversed.

The present invention relates to the coated material which gives an appropriate strength, a good light transmission, a good water repelling property and softness, and a flame retarding property to fiber materials (see Abstract). A main material of present invention is an alkoxysilane oligomer which has three hydrolyzable substituents ( $\equiv\text{Si-OR}$ ) and one unhydrolyzable substituent ( $\equiv\text{Si-R}$ ).

When the coating solution in which the main material is the alkoxysilane oligomer, which has three hydrolyzable substituents and one unhydrolyzable substituent, is coated on the fiber materials, both hard siloxane bonds ( $\equiv\text{Si-O-Si}\equiv$ ) and unreacted bonds ( $\equiv\text{Si-R}$ ) generate in a coated film.

These hard siloxane bonds give a moderate strength and a moderate fire retardant property to the fiber materials. However, since the unreacted part does not produce a

bonding with the networks of the generated siloxane bonds, the coated film maintains a degree of pliability. Moreover, the organic property of the unreacted group gives water repellence to the fiber materials. In other words, the siloxane bond with a moderate strength, a moderate fire retardant property, good water repellency and a moderate pliability can be coated on the fiber materials.

The present invention differs from the disclosure of Smith in at least two ways:

- A) Smith fails to disclose with sufficient specificity the claimed condensate degree; and
- B) Smith fails to disclose or suggest the concentration limitation of the present claims.

In regard to (A), the condensate degree of the claimed silane is  $n = 2-10$ . At no point does Smith disclose or suggest such a limitation. On this basis alone this ground of rejection should be withdrawn.

In regard to (B), the silane-based coating solution contains the claimed silane as *the main* component (i.e., the component that is present in the greatest amount, which is not necessarily greater than 50% as previously argued). Even if the skilled artisan were to interpret component (C) of Smith as being the claimed silane compound, this disclosure fails to meet the concentration limitation in the present claims. In fact, Smith specifically discloses the exact opposite (i.e., *teaches away* from the claimed invention). To this end, Applicants direct the Examiner's attention to the disclosure at column 4, lines 38-48 of Smith, which limits the total amount of component (C) to 25 parts per 100 parts of (A). Accordingly, (C) is *necessarily a minor component* in the coating composition disclosed by Smith. In view of this specific disclosure, Applicants submit that the claimed invention is neither anticipated by nor obvious in view of the disclosure of Smith.

Accordingly, for all the foregoing reasons, Applicants request withdrawal of these grounds of rejection.

The rejections of: (a) Claims 1-3 and 8-9 under 35 U.S.C. §102(b) over Bank et al (US 5,225,510), and (b) Claims 2, 5, and 11 under 35 U.S.C. §102(b) and/or 35 U.S.C. §103(a) over Bank et al (US 5,225,510), are obviated by amendment.

As recognized by the Examiner by the exclusion of Claims 4 and 10 from the present grounds of rejection, Bank et al is silent in regard to the hydrolyzable organometallic compounds recited in previously pending Claims 4 and 10. Accordingly, Applicants have amended Claims 1 and 8 to incorporate the organometallic compounds recited in Claims 4 and 10, respectively.

Applicants further note that, in view of the silence in Bank et al of the claimed catalysts, this reference cannot anticipate the claimed invention since the standard for anticipation requires that each and every claim limitation be taught in a single reference. Moreover, Applicants note that Bank et al does not even support a prima facie case of obviousness. Specifically, at column 2, lines 37-43, Bank et al disclose the permissible scope of catalysts, which does not include or suggest the claimed catalysts. Therefore, with Bank et al in hand the skilled artisan would have no motivation to replace the specifically recited catalyst with that of the claimed invention, much less an expectation of the advantages flowing therefrom.

In view of the foregoing, Applicants request withdrawal of these grounds of rejection.

Applicants respectfully request that the obviousness-type double patenting rejection over U.S. 6,403,183 in view of Marwitz et al be held in abeyance until an indication of

allowable subject matter in the present application. If at that time, the obviousness double patenting rejection remains as the only outstanding rejection, a terminal disclaimer will be filed, if necessary.

Applicants submit that the present application is now in condition for allowance.  
Early notification of such action is earnestly solicited.

Respectfully submitted,

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